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ABSTRACT

The College Outcomes Evaluation Program (COEP), intended to be a comprehensive assessment of higher education in New Jersey, focuses on outcomes in order to improve undergraduate education. After an introduction covering the national perspective, New Jersey's efforts, COEP, and rationale and principles, subcommittee reports summarize the content of five reports, using the perspectives of students, faculty, and institution. A glossary of related terms is provided in each section. The 10 COEP recommendations include: a common statewide assessment of general intellectual skills should be developed for use by each institution; each institution should assess the specific outcomes of its general education program; student development should be assessed at each institution using common statewide definitions for each of several indicators; and each institution should assess the outcomes of its efforts in the areas of research, scholarship, and creative expression. A report by Rodney T. Hartnett, Rutgers University, offers a different perspective to the Advisory Committee's recommendations. A minority report by K. Kiki Konstantinos, Superintendent of the Lenape School District, is included. An addendum looks at the board resolution and charge. Contains 12 references. (SM)

REPORT TO THE NEW JERSEY BOARD OF HIGHER EDUCATION FROM THE ADVISORY COMMITTEE TO THE COLLEGE OUTCOMES EVALUATION PROGRAM

OCTOBER 23, 1987

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FOR HIGHER EDUCATION

The AAHE ASSESSMENT FORUM is a three-year project supported by the Fund for the Improvement of Postsecondary Education. It entails three distinct but overlapping activities:

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MEMORANDUM

October 23, 1987

TO: Dr. T. Edward Hollander, Chancellor
Department of Higher Education

Members, Board of Higher Education

FROM: Dr. Stanley S. Bergen, Jr., Chair
College Outcomes Evaluation Program Advisory Committee

SUBJECT: Report of the College Outcomes Evaluation Program Advisory Committee

It is with pride and satisfaction that the College Outcomes Evaluation Program (COEP) Advisory Committee presents this report and its recommendations for your review. We thank you for the opportunity provided the committee to explore this issue of vital importance to the continued development, future stability, and well-being of higher education in New Jersey.

Since we first accepted your charge two years ago, we have investigated, debated, and reviewed many complex issues. Higher education is a diverse enterprise. Different sectors and institutions within sectors have their own missions, goals, and populations. We believe we should build on this diversity, not diminish this strength.

Our discussions led us to conclude that there were also commonalities. All institutions enroll and educate students, are concerned with scholarship, and impact society. We want our students to think, to solve problems, to read widely, and to write well.

In light of the need to balance the diversity of our institutions with their commonalities, the charge you gave us to develop an assessment program was difficult. As committee members, we have expressed diverse opinions. We do not pretend to have all the answers. What united us was a driving focus on excellence; we wanted New Jersey's system of higher education to be the best possible. As Governor Kean said at our second statewide conference on assessment last May:

> The assessment system that you and the Board of Higher Education are building must satisfy your own highest standards. . . . Design an assessment that is real, that has integrity, that *you* believe in. It has got to reflect the best traditions of higher learning. And you have got to live it in your work.

This is what we have tried to do. The recommendations we are making represent a consensus of our efforts. Not every one of us agrees with every point, but as a whole, we believe that what we recommend is needed for our colleges and universities to improve. We believe that we have put aside our biases and special interests and joined to produce an assessment program that is viable, worthwhile, and significant. Based upon careful review, we have attempted to make observations and comment upon most issues we found central to your charge to us. Lack of comment and/or dissenting opinion should not be viewed as complete concurrence, rather as consensus based upon hours of discussion and mutual respect.

We are not yet finished; we still have to implement those recommendations approved or amended by the Board of Higher Education. We hope you will soon permit us to continue what we have begun. If you agree that implementation should take place, we hope you will provide ongoing support for our efforts.

We seek collaboration with our colleagues across the state. Working together, we *can* attain excellence for New Jersey higher education in the future.

Report to the New Jersey Board of Higher Education from the Advisory Committee to the College Outcomes Evaluation Program

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EXECUTIVE SUMMARY

The College Outcomes Evaluation Program (COEP) is intended to be a comprehensive assessment of higher education in New Jersey. Its focus is on outcomes; its purpose is the improvement of undergraduate education. This report explains why we should develop an assessment program and what we should assess. It is not intended to be a final report, but rather the first of a series of annual reports to the Board of Higher Education on the success of our colleges' and universities' efforts.

It has been two years since the first meeting of the COEP Advisory Committee. All of us, including the members of our four subcommittees, have devoted many hours in numerous meetings to reach this point. We have moved carefully and deliberately — for we are convinced that this effort demands that kind of pace and concern. But we are far from finished. Much work needs to be done in refining definitions, developing instruments and measures, and, most importantly, in working with faculty and administrators at all of our institutions. We must continue what we have begun: to implement a sound system of assessment *on each campus.* We seek improvement through active involvement and commitment. Mere compliance and data collection will not be sufficient to produce the kind of post-secondary education system we are capable of providing and that students and taxpayers demand and deserve.

A Time for Action

The Board of Higher Education created COEP by resolution in June, 1985. An Advisory Committee was appointed and charged with developing a comprehensive assessment program. Student learning and development, faculty research and scholarship, and the impact of institutions on society comprised the focus of the charge. Special emphasis was placed on the question of developing a sophomore test in verbal skills, quantitative reasoning, and critical thinking.

The Board's action followed a long tradition of bold statewide initiatives. Two of these, in particular, have strong assessment components: the Educational Opportunity Fund and the Basic Skills Assessment Program. In addition, The Joint Statewide Task Force on Pre-College Preparation in 1983 specifically recommended a sophomore-level test.

Nationally, we have seen a number of significant reports on the condition of higher education. While each has had its own priorities, a recurring theme has been the assessment and improvement of undergraduate education. Governors in particular have called upon states to play a concerted role in this effort.

In New Jersey, Governor Kean has been forthright in his support of higher education and in his insistence that the colleges demonstrate that they are worthy of that support. Included in his program has been the Governor's Challenge Grant which has provided millions of dollars to upgrade our public colleges and universities. While assessment is an important component of all of these grants, Kean College of New Jersey in particular has taken a leadership role in creating a broad-based, faculty-intensive assessment of student learning.

The COEP Advisory Committee strongly believes that all of these factors combine to create a rare and powerful opportunity to improve our institutions. Most Americans are now convinced of the importance of a college education for intellectual growth, for greater career opportunities, and for the health of our society. The evidence is compelling to us that the twenty-first century will require higher levels of skills and increased flexibility. Now is clearly the time to develop systematic methods that ensure the success of our efforts.

What Should We Assess?

Over the past two years members of the Advisory Committee and its four subcommittees have struggled with the questions of what should be assessed and how. We have reviewed numerous documents, reports, and articles. We have called upon out-of-state consultants and sought the advice of colleagues. We have listened carefully to faculty and staff from every one of our colleges at the two statewide conferences we sponsored and on other occasions. But most importantly we have tried to understand and express what we expect students to learn, what is the rationale for research and related activities, and what impacts our institutions have and should have on our state. We have concluded that there are many answers to these questions and that the diversity of our enterprise is a source of strength and encouragement.

Without completely defining what higher education is all about, we addressed what was

important, the priorities of our endeavors. Rationale, definitions, measures, and procedures followed. This process frequently took a cyclical pattern that allowed us to return to earlier discussions and models as we sought to integrate our ideas and ultimately our recommendations. This process continues and must continue through various stages of implementation. But we have reached a point where we are ready to report and to recommend.

We decided to concentrate on defining and assessing the outcomes of higher education, what students learn, for example, not what they bring to us as they enter. The inputs (e.g., entry test scores and high school rank, number of books in the library, or the size of the endowment fund), while traditional measures of quality, are insufficient for determining how successful higher education is in achieving its goals.

Chapter II of this document provides a summary of the major areas addressed by each of our four subcommittees. It does not do their reports justice as no summary can fully capture the considered thought and rich detail of each report. The reader is, therefore, referred to the full subcommittee reports included as appendices to this report.

The Subcommittee on Student Learning addressed the current and future needs of our society in terms of student learning in the areas of general intellectual skills, modes of inquiry, appreciation for the human condition/ethical issues, and the major field of study. How students develop as human beings, their involvement in learning, as well as how many students stay in college, achieve satisfactory grades, graduate, and what they do after they leave college are all areas addressed by the subcommittee on Student Development/Post-Collegiate Activities.

Similarly, we examined the activities of faculty members in terms of research, scholarship, and creative expression. This subcommittee developed a comprehensive matrix of faculty activities, considering both the long- and short-term outcomes of these activities as well as their audiences. We concluded that the traditional methods of counting publications and citations or summing the dollars received from grants are *inadequate* measures of the richness of faculty research, scholarship, and creative expression.

Finally, we explored the impacts educational institutions as a whole might have on various populations. We constructed matrices of outcomes showing these different impacts on populations ranging from the individual to the state.

In all this, we kept in mind the diversity of our institutions, their individuality, and the goal of excellence in undergraduate education. It became obvious that no single measure, no simple number, no assessment of isolated indicators would suffice to describe, much less measure, the success of our efforts. What we all felt *a priori*, that multiple methods and indicators were needed, was increasingly driven home by our discussions and our conclusions. Higher education is a massive effort; any real assessment of it must be complex, longitudinal, multivariable. Consequently, the effort will take time, dollars, patience, and perseverance.

Recommendations

Higher education can be a powerful force for individual growth and opportunity. Already vital to the state's economy, it will become increasingly so in the future. A trained and educated citizenry is also a required ingredient of a democratic society. Excellence in higher education must be our goal.

The COEP Advisory Committee is convinced that a broad-based, comprehensive assessment program can help achieve that goal. Improvement can be accomplished best when we work together to learn how we are doing and what we can do better. Given the millions of dollars spent to carry out our endeavors, we can do no less than ensure that our colleges and universities are the best that they can be.

After two years of careful deliberation, the College Outcomes Advisory Committee makes the following recommendations for subsequent action (see also Chart I).

1. A common statewide assessment of general intellectual skills should be developed for use by each institution.
2. Each institution should assess the specific outcomes of its general education program.
3. Faculty in each program, department, or discipline should assess students' learning in each major course of study prior to graduation.
4. Student development should be assessed at each institution using common statewide definitions for each of the following indicators:
   - — retention rates
   - — program completion (including graduation) rates

— grade point averages
— credit completion ratios
— licensure/certification exam results
— post-collegiate activities including:
  • job/career information
  • further education
  • community/professional involvement

5. Each institution should assess both the personal development of its students and the degree of their satisfaction/involvement with their institutions.
6. Each institution should assess the outcomes of its efforts in the areas of research, scholarship, and creative expression.
7. Using common statewide definitions, each institution should assess its success in providing access and meeting the human resource needs of its population, as well as appraising its economic impact on the community.
8. Based upon its mission and goals, each institution should also assess its particular impacts on the community it serves.
9. Provide all institutions with additional funding, guidelines and criteria, and technical assistance needed to carry out these recommendations.
   and technical assistance needed to carry out these recommendations.
10. In all of these matters, involve faculty and administrators intimately in the process with a goal of commitment, not mere compliance. In this regard, create a standing broad-based COEP Council to continue the development of these efforts, oversee the collection and analysis of the information, and report regularly to the Board of Higher Education.

Finally, we must stress the need for patience. The prominent models of assessment at single institutions in other states took ten or more years to develop. What we are attempting to accomplish is a *statewide* effort requiring much discussion, interaction, compromise, and consensus. Our goals can be accomplished, but it will take funding, hard work, perseverance, creativity, and especially patience on the part of many individuals. We are convinced that what we propose is worth the effort.

CHART I
COEP VARIABLES

I Outcomes Clusters/Variables	II Type/Source Of Data	III Collection/Reporting Frequency
1. General Intellectual Skills-students' ability to find, use, & present information/data; skills in analysis, problem solving, critical thinking, quantitative reasoning, verbal abilities	Statewide assessment; test *samples* of students for *institutional* assessment	Periodic public reporting
2. General Education — defined partly as (a) ability to understand & apply *modes of inquiry*, (b) appreciate & confront enduring aspects of *human condition*, variety of responses to human issues & problems, and fashion reasoned ethical responses	Locally developed assessment defined partly in accordance with statewide definition	Periodic public reporting
3. Major field of study — defined in terms of objectives/outcomes chosen by faculty in each program/department	Program-level assessment	Part of ongoing 5-year evaluation and reporting cycle for all programs
4. Indirect indicators of student learning a. Retention rates b. Grade point averages c. Credit completion rates d. Program completion rates e. Licensure exams	Common definitions for (a) to (e)	Periodic public reporting for (a) to (e)
f. Students on academic probation/dismissed g. Reasons for withdrawal h. Graduate/professional school exams	Local definitions for (f) to (h)	Periodic internal reporting for (f) to (h)

5. Student involvement and satisfaction a. Enrolled students' involvement & off-campus activities b. Enrolled students' satisfaction	Locally defined	Periodic internal reporting
6. Students' personal development a. self-awareness b. values c. interpersonal relationships d. leadership	Locally defined	Periodic internal reporting
7. Community/Society Impact		
a. Human Resource Development: training/job related programs offered; projections on labor force needs; employer needs and perceptions re quality of students	Institutions collect/analyze data, with common definitions and designs	Periodic public reporting
b. Access: percent of target subgroup members admitted as students &/or receiving services, compared to demographics of region/community	Admission data from SURE; institutional data re participation in programs/services; surveys of needs assessment and perceptions of access	Periodic public reporting
c. Economic Impact: e.g., expenditures; economic contribution by institutional employees, students; data on costs of city services; taxes	Institutions compile & analyze data; report to COEP	Periodic public reporting
d. Local priorities	Locally defined	Periodic public reporting
8. Research, Scholarship, & Creative Expression (e.g., dissemination of knowledge/methods/ new discoveries to students, peers, business, & industry)	Defined in consultation with institutions; possible combination of statewide and locally selected outcomes	Periodic public reporting

I. INTRODUCTION

"The central aim of all of these programs, including New Jersey's, is the strengthening of instruction and educational performance in higher education through self-examination and self-improvement."

The Advisory Committee of the College Outcomes Evaluation Program is proposing the creation of a comprehensive assessment program aimed both at promoting educational excellence and strengthening public confidence in higher education. According to Ewell (1987), New Jersey is at the forefront of a growing national trend. Many of the country's fifty states are addressing or have already addressed the issue of outcomes assessment, and more states are becoming involved every year. Though diverse in form and substance, the central aim of all of these programs, including New Jersey's, is the strengthening of instruction and educational performance in higher education through self-examination and self-improvement.

The National Perspective

In 1983, the National Commission on Excellence in Education shocked the nation with its report entitled *A Nation at Risk*. The report stated that if any other country had done to us what we have done to our educational system, we would have considered it an act of war. It questioned the standards being used by American high schools and concluded that

> the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and people. (p. 5)

After a series of similar reports, it was not long before several began to focus on higher education. In 1984, the National Institute of Education issued *Involvement in Learning*, which called for increased emphasis on undergraduate teaching and learning. The report argued

> that institutions should be accountable not only for stating their expectations and standards but for assessing the degree to which those ends have been met. In practical terms, our colleges must value information far more than their current practices imply. They should make a conscientious effort to acquire and use better information about student learning, the effects of courses, and the impact of programs. (p. 21)

That same year Secretary of Education William J. Bennett released a report entitled *To Reclaim a Legacy*. The report expressed a concern that students lack "cultural literacy" due to the growth of professional studies at the expense of the humanities. This situation, Bennett asserted, is due both to students' perceptions and choices and to poor teaching, which is frequently the result of narrow research specialties. He believed that overly narrow specializations have led to a vacuum of responsibility for the curriculum as a whole resulting in a loss of coherence and meaning. Bennett concluded that knowledge

"Successful economic development, international competition, school reform, and teacher preparation all depend on excellence in undergraduate education."

itself should be at the core of the curriculum, and that assessment should focus on determining whether the student has the required knowledge before graduation.

Early in 1985, the Association of American Colleges released a report entitled *Integrity in the College Curriculum,* which argued that there is a crisis in American education revealed in the decay in the college course of study. The report cited "evidence of decline and devaluation" of a widespread nature.

The report listed the abilities which students should gain in college: 1) the ability to engage in inquiry, 2) abstract, logical thinking, 3) the ability to engage in critical analysis, and 4) the ability to read, write, and speak at levels of distinction. An understanding of science, history, politics, the arts, and other cultures was also cited as necessary for the college graduate.

The report recommended that faculty members reassume responsibility for the whole curriculum, and that they should design and monitor mechanisms to evaluate student progress in all desired abilities. It also recommended a national program of support for the development of sophisticated and reliable instruments of assessment.

In 1986, the Education Commission of the States, chaired by Governor Kean, released a report entitled *Transforming the State Role in Undergraduate Education.* The report emphasized that successful economic development, international competition, school reform, and teacher preparation all depend on excellence in undergraduate education. It contended that the nation's ability to maintain its leadership in a competitive world was at stake, and that undergraduate education must respond to these changing demands.

The report puts forth eight challenges to the higher education community:

1. to prepare students for the wide range of opportunities offered by a changing work force and society;
2. to improve students' preparation for college;
3. to improve overall rates of college participation and completion;
4. to meet the educational needs of an increasingly diverse student population;
5. to build greater student involvement in the undergraduate experience;
6. to improve assessment of student and institutional performance;
7. to motivate faculty and reward them for improving undergraduate education; and
8. to carry out more sharply defined institutional missions.

In order to meet these challenges, a transformation of the state role in higher education was necessary, and the committee made twenty-two specific recommendations to state leaders, including the use of multiple methods of assessment to improve student and institutional performance.

"It seems safe to assume that assessment is here to stay."

The importance of outcomes assessment in promoting educational excellence is also being emphasized in an increasing number of articles, reports, and conferences. For example, Derek Bok (in *Toward Higher Learning,* 1986) argues that institutions will eventually need to assess the effects of their programs if they are to sustain progress, while the 1986 National Governor's Association report entitled *Time for Results* recommends comprehensive assessment programs developed jointly by institutions and state governments or coordinating boards. From a 1985 meeting of hundreds of educators held in Columbia, South Carolina, a report entitled *Assessment in American Higher Education* emerged in which various authors concluded that assessment programs, properly designed, could only benefit the academy. As Peter Ewell (1987) argues in a recent article, it seems safe to assume that assessment is here to stay.

Some institutions and states have taken leadership roles in developing assessment programs. Alverno College in Wisconsin, for example, has implemented a "competency-based" approach to assessment that sets specific goals for students in the areas of communication skills, analytic abilities, problem solving, making judgments, social interaction, individual/environment interaction, and understanding the contemporary world and the arts. Criteria for assessing these abilities are determined by the faculty, and multiple means (including extensive interviews and use of "outside" evaluators) are used to judge student performance.

Another institution, Northeast Missouri State University (NMSU), has implemented a form of "value-added" assessment of student performance. There, standardized tests (e.g., ACT Assessment, ACT-COMP, or GRE), administered at several points in a student's career, yield scores that measure academic growth. These scores are supplemented with survey data on attitudes of students, faculty, alumni, and employers to give a clearer sense of the impact of a NMSU education.

A similar approach to student outcomes asssessment is used at the University of Tennessee, Knoxville (UTK). There, freshmen and seniors take the ACT-COMP, seniors are evaluated in their major fields, and student opinion surveys are administered periodically. Again, the purpose is to approach student outcomes from a value-added perspective.

The program at UTK is designed to satisfy the State of Tennessee's desire for data on student outcomes that are tied into a statewide performance-funding program. In that state, institutions must demonstrate their impact on students through outcomes assesssment, and the findings have implications for providing additional funds.

State legislatures and boards in other states have asked institutions to strengthen their outcomes assessment programs without mandating the specific details. These

include the states of Colorado, Connecticut, Illinois, Minnesota, Missouri, South Dakota, and Virginia.

Florida has mandated that students must pass a test at the end of their sophomore year before receiving an associate degree at a two-year college or proceeding on to the junior year at a four-year college. While Georgia has a similar program, according to Ewell (1987), few other states are considering such a gateway (or "rising junior") exam.

"There is overwhelming evidence that assessment is a major national focus, not only among educators, but governors, legislators, and coordinating boards/departments."

There is overwhelming evidence that assessment is a major national focus, not only among educators, but governors, legislators, and coordinating boards/departments. Whether the emphasis is on accountability or improvement, many leaders want increased information on how dollars are being spent and how well students are learning. The traditional methods of assessing inputs are no longer sufficient. Neither are assertions, however sincere, of trust, autonomy, diversity, or complexity.

New Jersey's Efforts

The State of New Jersey has been at the forefront of the movement to maintain and improve academic standards at the undergraduate level. Programs in various areas (e.g., the Basic Skills Assessment Program, the Educational Opportunity Fund, and the Governor's Challenge Grant Program) have been developed to benefit higher education throughout the state.

The New Jersey Basic Skills Asssessment Program was created by the Board of Higher Education in 1977 to assess the basic skills proficiencies of entering freshmen and to evaluate the effectiveness of each institution's remedial efforts. A cornerstone of this program has been the administration of the New Jersey College Basic Skills Placement Test. In addition, every public college must assess the outcomes of its remedial programs following specific statewide guidelines. Essential to these efforts has been the work of the Basic Skills Council and its several subcommittees, which have provided a successful model of collaboration between faculty members and the Department of Higher Education.

Begun in the late sixties to foster access to higher education for disadvantaged students, the Educational Opportunity Fund Program (EOF) has provided educational and support services to thousands of students entering New Jersey colleges. In addition to special classes and summer programs, financial aid and counseling, EOF has developed an elaborate statewide system of evaluation to ensure that funds are used appropriately and services provided effectively.

In 1983, the Joint Statewide Task Force on Pre-College Preparation issued a report defining the proficiencies in reading, writing, and mathematics needed for college and for life. Recommendations were also made calling

for periodic testing of skills and knowledge throughout the educational system, including an eleventh grade high school graduation test and a test for college sophomores.

More recently, Governor Kean spearheaded the creation of the Governor's Challenge Grant Program to "challenge the institutions of higher learning in the state to achieve excellence." With only one exception, every public four-year institution has received this special funding; two-year institutions have begun receiving similar grants. Assessment is a key element in all of these grant programs.

"COEP... is intended to provide feedback on how higher education is performing in our state and as a catalyst for improvement."

One of the first to receive a grant through the Governor's Challenge was Kean College of New Jersey, which received a three-year grant totaling $3.9 million of which approximately $600,000 has been designated for assessment. Kean College has used these funds to develop a faculty-intensive, campus-wide program to define and assess student learning in general education and in the major.

The College Outcomes Evaluation Program (COEP)

COEP grew out of these successful New Jersey experiences and has been spurred on by the national movement to assess higher education. Created by the Board of Higher Education in June, 1985, it is intended to provide feedback on how higher education is performing in our state and as a catalyst for improvement. The Board resolution (see Addendum) called for the creation of a comprehensive statewide assessment program. While much focus was placed on the development of a sophomore test in critical thinking, quantitative reasoning, and verbal skills, the Board also sought assessment of other areas of student learning as well as the outcomes of faculty research and the impact of institutions on society. An Advisory Committee was appointed to make recommendations to the Board on how best to implement such an assessment program.

We first met in October, 1985, and soon realized the size of our group (twenty-three) and the complexity of the task were too large for one committee. We divided our efforts into four subtasks and created a subcommittee for each, chaired by one of our committee members. Each of the following subcommittees was charged, appointed, and began meeting late in 1985:

(A) Student Learning — focusing on direct measures of cognitive student learning
(B) Student Development/Post Collegiate Activities — also addressing student learning but focusing more on indirect measures, as well as the personal development of students, and the activities of students after they leave their institutions.
(C) Research, Scholarship, and Creative Expression — studying the activities and outcomes of faculty in

these three areas.

(D) Community/Society Impact — determining the outcomes and impacts that institutions have on their community or the society as a whole.

Each subcommittee regularly kept us informed with oral and written progress reports culminating in a "final report" from each group this summer. (Appendices A, B, C, and D provide the complete reports of the COEP subcommittees.)

"We believe that the American system of higher education, combining quality with access and diversity, is as good as any system anywhere in the world. We also believe it can improve."

Rationale/Principles

Higher education in the United States has a long and rich history of providing broad-based education and training to its citizens. This tradition has served to provide most of the leaders of our society in many occupations and fields. While this role of educating our leaders continues today, higher education plays a broader role (and will undoubtedly provide an even greater part in the future) in educating people in order to achieve jobs and levels of skills necessary for a successful economic base. The evidence is growing that a state (or a country) cannot prosper, cannot successfully compete in markets, without a sufficient number of people with the level of education our colleges and universities can and have provided (see especially the ECS report, *Higher Education and the American Resurgence,* 1985).

We believe that the American system of higher education, combining quality with access and diversity, is as good as any system anywhere in the world. We also believe it can improve.

Diversity is clearly an important strength of higher education both nationwide and in New Jersey. We are strongly committed to maintaining the strengths of that diversity. At the same time, there are commonalities across our institutions. We can and do learn from each other; we can and do expect a number of similar outcomes. In examining and strengthening our commonalities, we need not and must not lose that diversity which is integral to our system.

Assessment can play an important role in achieving excellence. This is not a new concept, but the traditional focus has been on the *inputs* of the system. Popular indicators of excellence have been the quality of the students who enter (e.g., SAT or ACT scores and high school rank), the degrees held by the faculty, the number of books in the library, the tuition charged, and the size of the endowment fund. These factors, we believe, are insufficient to measure how effective we are in educating students and achieving our other goals. Rather, we need to focus on the outcomes of our endeavors: how many students stay in the institution and complete their program; how much do students learn, what they learn, and how much growth has taken place; what are the results of our research activities; and what impact any institution has

on a community. A focus on outcomes permits common methods of assessment without undermining autonomy and diversity of programs and institutions. What we are attempting to measure is complicated; no single measure will do it. Rather our efforts in this area must be broad-based. To focus on a single variable, a few numbers, or even attempting to quantify all aspects of our endeavors on some simplistic scale is contrary to good practices of assessment. A simplistic approach will tell us little of what we are achieving or what needs to be improved. We are equally convinced that careful and creative thinking and planning, well conceived definitions and methods, and collection of information on multiple outcomes variables can and will give a reasonably clear sense of our accomplishments.

"Assessment is a technique for demonstrating that our efforts have been worthwhile, that we are making progress, that we *can* accomplish our goals."

Assessment cannot be a one-shot effort. Longitudinal, ongoing, even continuous assessment is required for accuracy, to allow for change, and to demonstrate growth. A long-term approach is also needed because change takes place slowly and because we want assessment, feedback, and improvement to be an integral part of every institution. Mere compliance is rarely effective and too often counterproductive. What we seek is broad-based, ongoing commitment and involvement in our educational system. Assessment can be a catalyst for this commitment; it can also be a tool for identifying where our efforts and priorities should be placed. And finally, assessment is a technique for demonstrating that our efforts have been worthwhile, that we are making progress, that we *can* accomplish our goals.

Thus, assessment serves dual purposes: accountability and institutional diagnosis. The former relates to the need to demonstrate that the funding and resources provided are worthy of public support, while the latter relates to the importance of self-knowledge as the basis for improvement.

"It is critically important to design an outcomes assessment program that allows faculty members and administrators to *use* information to *improve* higher education's services to its students and to the society-at-large."

It is critically important to design an outcomes assessment program that allows faculty members and administrators to *use* information to *improve* higher education's services to its students and to the society-at-large. Individual faculty members should be able to look at outcomes data, relate the findings to their own pedagogy, and respond accordingly if they find aspects of their teaching that need improvement. The entire college or university community (faculty, administration, students, and alumni) should use outcomes data to examine curricula at both the program and institutional levels. Similarly, all-inclusive discussions should be held on the institution's obligations to its surrounding community and the wider society of which it is a part.

In strongly endorsing the concept of continuous institutional evaluation for academic program improvement, we are also aware of the need for the state to evaluate institutional performance and to play a

"We believe that statewide assessment demands that multiple outcomes measures be identified for potential study, and that multiple methods of data collection and analysis be available for use."

role in assessment. As noted above, this role may include collecting and analyzing institutional information about students, reporting to the public and to decision-makers, providing external guidelines on some key areas of institutional assessment, and perhaps most important, serving as a catalyst to motivate institutions. In this last role, the state also has an obligation to provide incentives, funding, and technical assistance to the institutions.

In the final analysis, both purposes for assessment are important, but a delicate balance must be maintained to avoid having outcomes evaluation become simply another reporting requirement (Ewell, 1987). As Governor Kean stated on May 8, 1987, at COEP's second, statewide conference on assessment in New Jersey:

> No, this is *not* to be just a reporting requirement. What we seek together is stronger undergraduate education in New Jersey. The only point of the assessment system is to push us along that path. That means you have to *use* the information you get about performance.

Notwithstanding the needs of a statewide assessment, we are fully aware that each college has a unique history, mission, faculty, student body, and relevant public. Any statewide effort must take this uniqueness into account. Because of our sensitivity to institutional uniqueness, on the one hand, and our awareness of an appropriate state role, on the other, we are convinced that the emphasis of a state effort should be to encourage and aid institutions to carry out their own programs for assessment and improvement. Thus, requirements for collecting uniform data statewide should be relatively few in number and geared to meet only the top priorities of the state.

New Jersey's outcomes assessment program must be comprehensive and flexible to capture the variety of impacts that higher education has on the state. Consequently, we believe that statewide assessment demands that multiple outcomes measures be identified for potential study, and that multiple methods of data collection and analysis be available for use. A truly comprehensive assessment program must rely on a variety of methods (e.g. survey, interview, and direct observation) to yield both qualitative and quantitative information.

Clearly the development of an outcomes assessment program is an exceedingly difficult task, one that requires breadth of vision, sensitivity, attention to detail, and, above all, patience. But we believe it is worth the effort. If properly done, outcomes assessment can be a powerful tool to improve undergraduate education in New Jersey and the nation. And it can accomplish this end without undermining the inherent strengths of student heterogeneity and institutional diversity and autonomy. At the same time, an assessment program can provide the state with the information it needs to assess the accomplishments of the system as a whole in areas of particular importance.

II. SUMMARY OF SUBCOMMITTEE REPORTS

Five major areas of student learning

This chapter summarizes the twenty months of work and the resulting final report from each of our four subcommittees. It does not do justice to the rich detail of their efforts. The reader is referred to the full reports contained as appendices to this report to understand better and appreciate the rationale and definitions described here.

We have organized their work from three perspectives: students, faculty, and institution. Within each perspective we have tried to describe common outcomes areas and discuss possible methods of measurement.

Students

There are undoubtedly many ways to define and classify student learning. One common way is to differentiate between cognitive and affective learning. Cognitive learning focuses on such intellectual aspects as thinking and analyzing while affective learning is more related to feelings and personal development. In truth, most learning has components of both and a differentiation is made more on emphasis. Any understanding, and thus any measurement of learning must appreciate the interaction of both cognitive and affective components.

We have chosen to focus on five major areas of student learning: basic skills, general intellectual skills, modes of inquiry, appreciation of the human condition/ethical issues, and the major. (Glossary 1 provides a brief definition of each; for a more complete description, see the report of the Student Learning Subcommittee in Appendix D.)

The basic skills of reading, writing, and mathematics are the building blocks of a college education; indeed they are necessary for life. These are the skills that a student should possess when entering college. In this regard, all incoming freshmen at New Jersey's public and participating independent institutions take the New Jersey College Basic Skills Placement Test (NJCBSPT). This is a direct, standardized, external assessment of pre-college reading, writing, and mathematics. Students who do not meet institutional standards are provided with developmental (remedial) education, including coursework in those areas in which they are lacking sufficient skills. When they have completed remediation, students take a post-test to determine if they have achieved the proficiency needed for college-level work.

The Advisory Committee believes that this Basic Skills Assessment Program is appropriate and effective in assessing and requiring proficiency in basic skills before students begin college-level courses. The recent Board resolution on post-testing (February, 1987) further ensures the basic skills proficiency of all entering students.

GLOSSARY I: AREAS OF STUDENT LEARNING

Basic Skills

These are skills in the areas of reading, writing, and mathematics that are prerequisites for college-level work. As such, they cannot be considered college-level skills, in-and-of themselves. For students enrolled in remedial courses, however, some of these proficiencies are learned and developed in a college setting. In addition, college should maintain, expand, and refine the basic skills proficiencies of all students, whether or not they are enrolled in remedial courses.

General Intellectual Skills

These are skills necessary to critically analyze and utilize information (sometimes referred to as "higher order" skills). Specifically, they include the skills necessary to:

a) Accumulate and Examine Information — including the skills necessary to: determine the kinds of information needed for a given task; construct and implement a systematic search procedure, using both traditional and computerized methods; discard or retain information based on an initial screening for relevance and credibility; and develop abstract concepts appropriate to the task at hand for initially ordering the information which is retained.

b) Reconfigure, Think About, and Draw Conclusions from Information — including the skills necessary to: evaluate the interpretations presented by others in terms of their assumptions, logical inferences, and empirical evidence; reconfigure information in ways that suggest a range of alternative interpretations and evaluate their relative merits; construct hypotheses that logically extend thought from areas in which information is already available into areas where it is not; specify the additional information which might confirm or disconfirm those hypotheses; and draw conclusions based on all of the above.

c) Present Information — including the skills necessary to express one's own ideas in written, oral, and graphic forms which will be intelligible and persuasive to a variety of audiences.

Modes of Inquiry

a) The Rational Mode — as used in all aspects of inquiry requiring exploration of the logical implications of *a priori* assumptions, and, in particular, the formal manipulation and application of abstract models.

b) The Empirical Mode, including the

- Experimental Method — as used in all aspects of inquiry requiring observation and measurement of quantifiable variables under controlled conditions in the natural environment or in the laboratory.

- Comparative Method — as used in all aspects of inquiry requiring observation and analysis of qualitative as well as quantitative variables under conditions that cannot be controlled or characterized completely.

- Historical Method — as used in all aspects of inquiry where explanation depends upon analysis of change over time and understanding presupposes an act of synthesis of the forces that produce change.

c) The Intuitive Mode — as used in *all* areas of human endeavor, including the scientific, in which non-linear/non-sequential thought processes (e.g. speculation, cogitation, and serendipity) lead to valuable insights, the creation of new paradigms, and "discovery," and where perception and expression are not limited to the written or spoken word.

d) The Aesthetic Mode — as used in areas where ideas of "beauty" in form and function gain a place of priority in the creative and evaluative processes, and where perception and expression are not limited to the written or spoken word.

Appreciation for the Human Condition and Ethical Issues

Refers to the appreciation of major continuities in the human experience across time and cultural boundaries. Such an appreciation will require: a) a breadth of knowledge about some of the major continuities apparent in the "natural" (biological and physical) world, in organized societies, and in the interrelationship between the two; b) an understanding of the variety of responses human cultures have fashioned across time and space to some of the issues raised by those continuities; and c) an understanding that all those responses reflect underlying values, and hence have an ethical dimension which may help to inform the individual choices which students will have to make in their own lives. These three kinds of understandings might be described in greater detail as follows:

a) An understanding of the *continuities* in the human condition should include:

- An understanding of the *physical and biological world*, of the enduring issues which have been raised regarding the place of the human species in that world, and of the implications for those issues of current transformations of our knowledge in these areas.
- An understanding of *organized societies*, of the enduring issues which have been raised regarding the relationship of individuals to organized societies, and of the implications for those issues of the growing interdependence and interpenetration of diverse societies and cultures.
- An understanding of the implications for all of the above issues of our growing *technological* ability to manipulate the physical and biological worlds, individual members of organized societies, and information about both.

b) An understanding of the *variety of responses* human cultures have fashioned to such issues should include:

- Historical consciousness and, in particular, an understanding of the variety of ways humankind has responded to enduring individual and social issues *over time*.
- Both intracultural and intercultural understanding and, in particular, an understanding of the variety of ways humankind has responded to enduring individual and social issues *within* and *across cultures*.
- Aesthetic appreciation and, in particular, an understanding of the visual arts, the performing arts, and literature as commentaries on the human condition *across time and cultures*.

c) The capacity to construct a *reasoned personal response* to ethical issues no doubt depends on a broad range of factors, many of which lie outside the purview of formal education. We believe, however, that the development of such a capacity will be aided by understanding in all of the above areas, and by the self-understanding derived from it.

Application to Study in Depth or The Major

Refers to the ability to *apply* the intellectual capacities described above to a detailed and disciplined study of a specific area of knowledge and set of problems. This is an important justification for the traditional major. The specific capacities which should be developed will, of course, vary from major to major.

"Students' general intellectual skills are developed and refined at *all* of New Jersey's institutions of higher education."

General intellectual skills include analysis, problem solving, critical thinking, quantitative reasoning, and written and oral expression. These skills are seen in a student's ability to find, use, and present information.

Students' general intellectual skills are developed and refined at *all* of New Jersey's institutions of higher education. It does not matter which program or department students major in, or what degree or certificate they ultimately attain. These are broad-based, common skills that are necessary in all disciplines and fields.

Inextricably tied to these general intellectual skills are two key elements of general education that we refer to as Modes of Inquiry and Appreciation for the Human Condition and Ethical Issues. Together, these represent the processes of learning and the broad range of knowledge we expect our college and university graduates to possess. An ability to understand and use modes of inquiry helps students to know how they and others arrive at conclusions using empirical, intuitive, or aesthetic processes.

An appreciation for the human condition and ethical issues develops through wide study of the arts and letters, history, the social and natural sciences, and the professions. It entails knowledge of the "natural" world and humanity's place in it. This appreciation also includes historical, inter- and intra-cultural, and aesthetic consciousness, as well as understanding the values inherent in all human action. In short, it is an appreciation of: 1) the enduring issues facing humanity, 2) the variety of ways humans have responded to these issues, and 3) the underlying ethical dimension associated with these various responses to enduring issues.

Finally, we believe it is important for students to learn to apply these broader skills and understandings to the disciplined study of a specific area of knowledge or set of problems. Work within a major field, with its concentrated focus and in-depth study, provides students with the special skills and experience they will need to successfully address a variety of issues and solve practical problems. The exact skills and experiences that students acquire will, of course, vary with the field each has chosen as the major.

In these latter four areas of student learning that we have identified, most measurement currently takes place through tests, projects, and term papers designed by individual faculty members. These assessments and the assignment of grades generally occur within the framework of a particular course. Neither their development nor their scoring is usually evaluated by an external source.

For some students at some institutions, assessment in these areas includes a departmental exam, a senior project or some similar capstone experience, an occasional college-wide measure (e.g., a writing test), or a licensure/

"We believe that careful analyses of appropriate information about student learning can better inform policy decisions at both institutional and statewide levels."

certification exam. Many students have none of these experiences or have them only in a particular course. Rarely are such assessments employed systematically to assess institutional or even programmatic effectiveness.

We also believe that students learn in areas which include more affective components. We have defined these areas as personal development. Understanding oneself, relating to others, leadership, and values are all aspects of student learning having both affective and cognitive aspects. (See the Student Development Subcommittee Report included in Appendix C for examples of descriptions of these four personal development areas.) Other areas could also be identified such as philosophy of life, attitudes, and beliefs. Many colleges and universities identify several goals of personal development; rarely do they assess how well they meet their goals.

There appears to be little agreement on what areas of personal development should be stressed or how our institutions play a role in their learning. In addition, definitions are not well set and assessment not clearly defined. Nevertheless, we believe that personal development does take place at college, that institutions affect this development, and that, therefore, there is a need to assess how well these goals are being met.

A number of indicators provide important information about student learning although they are not classified as learning per se. Retention, for example, is certainly important for student learning — at least in assessing institutional impact on learning. Involvement in learning and in extracurricular activities as well as student satisfaction are all student-oriented indicators of institutional effectiveness. Whether students complete their programs and graduate, as well as what activities they engage in after they leave their institution, can provide relevant feedback for institutional improvement. (See Glossary II for definitions of these indicators.) Other important indicators might include results of graduate and professional school admissions tests, number of students placed on probation, or reasons for withdrawing from college. A comprehensive assessment program should examine most, if not all, of these variables in order to construct a valid picture of an institution's effectiveness.

Learning takes place for all students before, during, and after their college attendance as well as from both on-campus and off-campus experiences. The current state of research does not allow clear differentiation of the internal and external sources. What is clear, however, is that students do change and grow and that colleges affect this process. We believe that careful analyses of appropriate information about student learning can better inform policy decisions at both institutional and statewide levels.

GLOSSARY II: AREAS OF ACADEMIC PERFORMANCE

Retention Rate	The number and percentage of an entering cohort of students who are enrolled in the college of entry or any college in the state system.
Program Completion Rate	The number and percentage of an entering cohort of students who complete a program.
Grade Point Average	The average of grades received for college-level courses.
Credit Completion Rate	The ratio of college-level credits earned to credits attempted.
Licensure/Certification Exam Results	The number and percentage of students who take and pass a licensure or certification exam.
Post-Collegiate Activities	Survey results from students after they leave an institution in the areas of job, further education, and community involvement.

"Assessment of faculty outcomes must be broad-based and inclusive."

The Faculty

In choosing the faculty as one of our three perspectives, we focused on their activities in the areas of research, scholarship, and creative expression. Further, we are interested in assessing the outcomes of faculty endeavors in these areas in the aggregate only. Nothing COEP assesses should relate to the evaluation of individual faculty members.

A central theme running throughout the work of this subcommittee is that faculty activities, and the outcomes of those activities, have been viewed too narrowly by those involved with assessment at the institutional, divisional, and even departmental levels. We endorse the view that assessment of faculty outcomes must be broad-based and inclusive.

A partial listing of these activities might indicate that faculty are expected to:

1. continue to learn and develop as academics (i.e., professional development);
2. prepare courses and teach both skills and subject matter to their students;
3. contribute to discussions on the entire college curriculum;
4. provide formal and informal guidance to students in matters of academic performance and personal development (i.e., advising);
5. contribute what skills and expertise they possess to promote the smooth functioning of the institution (i.e., college service);

6. discover, generate, propose, or create new data, reinterpretations of existing data, new technologies, new models/theories/paradigms, new works of art or literature, or reinterpretations of existing works of art and literature (i.e., research and creative expression);
7. disseminate information (using expressive behavior where appropriate) on these discoveries or creations both within and beyond the walls of the institution (i.e., publishing, presentation of findings, displays of work, or performances); and
8. contribute skills and knowledge to help solve practical problems facing a community, or to enhance the quality of life of that community or society as a whole (i.e., public/community service).

A list of the key audiences to whom these activities would be directed would include current students, former students, peers (inside and outside the institution), college or university administrative staff, the general public, the media, non-profit and voluntary organizations, business and industry, and government agencies (local, state, or national).

The "outputs" of these faculty activities can assume many forms, from a lecture given in a classroom, to a painting, to an article published in a refereed journal, to a book. Outputs, in and of themselves, are *not* outcomes. Outcomes refer to the impact that these products of faculty activity have on the audiences to whom they are directed. Outcomes may be immediately observed, such as when a faculty production of a comedy results in laughter and appreciation among an audience of students, peers, and the general public, or they may be felt by larger audiences months, years, and even generations into the future (e.g. between the time a vaccine is discovered in the laboratory, and the time it sees widespread use, saving human lives).

We believe that, while long-range outcomes may be more important for the society as a whole, practicality demands that assessment efforts be focused on what we call intermediate outcomes of research, scholarship, and creative expression. These are more immediate with regard to time, and more circumscribed in their scope. An example of an intermediate outcome might be improved research capability on the part of students who have benefitted from outputs (e.g. lectures and demonstrations) of faculty teaching activities.

We have divided intermediate outcomes into two categories: 1) those resulting from a process of *generation* or creation, and 2) those resulting from a process of *dissemination*. Other outcomes may also be identified as institutions and faculty focus their attention on this issue.

As difficult and complex as the measurement of student outcomes is, we believe that measurement of the

"Traditional measures of research, scholarship, and creative expression are, by and large, inadequate."

outcomes of research, scholarship, and creative expression is far more problematic and complicated, even when intermediate rather than long-range outcomes are assessed, and even without consideration of the added complexity of diverse institutional missions and goals. We are therefore convinced that outcomes assessment in this area must be approached cautiously, with wide participation of faculty members and institutional representatives.

Traditional measures of research, scholarship, and creative expression are, by and large, inadequate. At best, they are too narrowly focused and mechanistic, emphasizing routine counts of faculty publications, grant monies, presentations, or performances. Faculty members do more than simply publish, and the outcomes of these activities are not always quantifiable. At worst, these traditional measures completely miss the mark in the sense that they are focused on easily quantifiable *outputs* of faculty activities, rather than being focused on the *outcomes* achieved as a result of these activities. To simply count publications or grant dollars attracted to the institution is not addressing outcomes assessment adequately. Additional measures and methods are called for.

The literature on outcomes assessment has not been helpful in supplying these needed measures and methods. New ground is being broken, and both time and broad participation will be required before systematic, assessment is possible in this area. Institutions and faculty will need to identify priorities, help in the selection of a small number of common measures, and participate in the development and testing of appropriate methodologies for assessment.

"New ground is being broken, and both time and broad participation will be required before systematic assessment is possible in this area."

We are convinced that it will ultimately be possible to assess the intermediate-range outcomes of research, scholarship, and creative expression. In the process, the outcomes of these important activities of the faculty will be more easily communicated to the public, institutions will be more able to identify the extent to which their goals in this area are being met, and state policy in this area will be better informed.

The Institution

The mere presence of an institution of higher education in a particular community has immediate and tangible consequences for everyone living within the college's or university's service area. Individuals, groups (e.g. those defined by occupation, ethnicity, sex, or age), and, indeed, the entire population of the region (the societal perspective) will be affected. Some institutions affect the lives of people far distant from their campuses.

Every aspect of peoples' lives will be touched to one degree or another, from the purely economic, to the political, social, and cultural dimensions of existence. Student,

"Institutions vary widely in their missions . . . assessment must take this diversity into account."

faculty, staff, visitor, and institutional spending will increase business volume, stimulate growth, and create jobs. Training, educational, and cultural programs for both students and community residents can help develop a region's human resources, thus improving its business, political, and cultural climate, and making it an attractive location for both investors and people looking for a place to settle and live. Social justice and equity can be promoted by granting access to services and courses to historically disenfranchised groups in society. In short, although its primary responsibility is to its students, we believe that each institution can and should serve *both* these students and the society at large.

Institutions vary widely in their missions; a community college defines its community much more narrowly, for example, than a state university. Assessment must take this diversity into account. Nevertheless, we believe that there are three indicators of community/society impact common to all institutions: access, economic impact, and human resource development. (See Glossary III for a more complete description of these indicators.)

Several methods of data collection currently exist that can provide institutions with new outcomes data on institutional impact. A good example would be the methods developed by Caffrey and Isaacs (1971) for economic impact studies. Most institutions, too, already collect a great deal of information about institutional outcomes. Some examples of existing data include records of college or university expenditures, results of needs assessment surveys, results of alumni surveys that include information on alumni activities in the community, attendance figures for cultural and sporting events, enrollment statistics for non-credit courses, and figures on use of facilities and services.

Additional information exists outside the institution that can be readily used. Some examples include census data, data on taxes, historical data found in newspaper (or other) archives, and data on the more quantitative measures of quality of life (e.g. crime rates, availability of housing, or transportation statistics). These sources of data are fairly inexpensive to tap, and permit the "unobtrusive" measurement of community outcomes.

In the areas common to all institutions (i.e., access, economic impact, and human resource development), a variety of measures could be used to assess outcomes. For example, measures of access might include: 1) admission to the academic program or to non-credit courses, training programs, and workshops; 2) admission to pre-college programs designed to enhance the likelihood of successful completion of college or university programs; 3) provision of services such as health clinics, referral services, or expert advice of faculty and staff (including number of participants); 4) use of facilities such as a library, gymnasium, or meeting rooms by the public, or

sponsorship of cultural and sporting events; and 5) other outreach activities associated with recruiting, financial aid, or other services designed to make the institution accessible to the people of New Jersey.

Possible measures of economic impact include: 1) direct institutional expenditures (adjusted to reflect the multiplier effect); 2) indirect institutional expenditures such as spending by students and visitors (adjusted to reflect the multiplier effect); 3) net effect on a community's tax base; 4) changes in a community's store of finance capital (i.e., savings); 5) changes in levels of technology; 6) changes in the attractiveness of an area to outside business interests; and 7) an institution's own activities in the area of new venture development and entrepreneurship.

"Analysis of outcomes data on student learning and development, faculty activities, and community/society impact must be conducted so as to reflect an integration of perspectives."

Possible measures in the area of human resource development include the availability and quality of: 1) professional training programs for students (including number of participants); 2) workshops, seminars, or non-credit courses for citizens already in the workforce designed to enhance their skills; 3) placement and referral services matching employer needs with student qualifications; 4) faculty and staff who lend expertise to community leaders; and 5) data on the perceptions of corporate, government, and non-profit employers regarding an institution's programs.

In summary, we have examined the work of our subcommittees through the student, faculty, and institutional perspectives. We wish to emphasize, however, that in reality these are overlapping and interrelated perspectives. Data collection in the various areas must be coordinated to avoid duplication of effort. More important, analysis of outcomes data on student learning and development, faculty activities, and community/society impact must be conducted so as to reflect an integration of perspectives.

This becomes critically important as we move from data collection and analysis into the realm of policy planning and action. If interrelationships are not clearly understood (e.g., between faculty research and a community's quality of life), then it becomes difficult to recommend changes that will bring about the ends desired (i.e., excellence in both undergraduate education and service to the wider society). Only analysis that integrates these perspectives will allow us to address fruitfully the concerns we may have about the critical *processes* of learning, development, teaching, research, scholarship, creative expression, and service to community and society.

GLOSSARY III: AREAS OF COMMUNITY/SOCIETY IMPACT

Access

An outcome of efforts made by institutions to reach all of New Jersey's citizens, particularly those belonging to traditionally disenfranchised groups, in order to promote social equity and greater civic involvement, improve the quality of life, enhance status and mobility for individuals, and increase levels of personal satisfaction that are related to increased likelihood of achieving personal goals.

Access, here, refers *both* to normal admissions to the academic program and access to other institutional services that may be provided to community residents who may not seek admission as students.

Economic Impact

An outcome of an institution's participation in a local economy that results in, e.g., changes in economic production and productivity, changes in business volume, changes in the local labor market, and changes in levels of capitalization in industry and the service sector.

Assessment in this area requires institutions to study both the *economic costs* and the *economic benefits* of their presence in a particular community. Some factors that bear upon economic impact cannot be controlled by institutions (e.g., where and how much visitors, students, or faculty spend), but it is important to know their effects notwithstanding.

Human Resource Development

An outcome of an institution's efforts to provide optimal training to individual students about to enter the labor market, provide continued training to those already in the workforce, provide agencies and organizations with a trained labor force, and enhance the overall levels of skills of a community's most valuable resource, its people.

This is an area of economic impact over which institutions exert a great deal of control through their curricula and special program offerings. Ultimately, the institutions may wish to consider the non-economic aspects of human resource development, either within the context of community/society outcomes assessment, or under the rubric of student learning or student development outcomes.

III. RECOMMENDATIONS

Assessment can and should be an integral part of any institution. Periodic, ongoing evaluation of effort provides feedback both on areas of accomplishment and on places where reform is needed. Even where goals are achieved, no institution should allow itself to become complacent. High standards need to be constantly scrutinized and maintained. Changing conditions need to be understood and accommodated. Assessment provides information needed to achieve and maintain excellence. We make these recommendations with these principles in mind and with a goal to make the New Jersey higher education system the best in the country.

In making these recommendations, we again emphasize that this program asks for commitment, not mere compliance. We are convinced that commitment will only take place when large numbers of individuals at each institution are involved in the process. Faculty members working within their own departments must also work with colleagues across the campus. Administrative leaders must work with faculty and staff to make each institution aware of its particular mission, its strengths, and its areas needing improvement.

The process we are proposing must take place on each campus as well as sector-wide and statewide. Collaborative efforts must be encouraged if this program is to succeed.

We believe that now is the time to act. The direction and support needed to carry out this massive effort is currently being provided. The Governor and the legislature, the Board and the Chancellor, even the national climate, are aligned to focus on undergraduate education. This opportunity will not last forever.

The College Outcomes Evaluation Program Advisory Committee has been meeting for two years. Over that time, we have reviewed several interim reports as well as a final report from each of our four subcommittees. We have also reviewed a variety of other reports from national agencies and groups, individual states, consultants, and staff. Two statewide conferences attended by hundreds of New Jersey college faculty and administrators provided review and comment on our work. We have read and we have thought; we have listened, debated and thought again. We now make the following recommendations:

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1. A common statewide assessment of general intellectual skills should be developed for use by each institution.

General intellectual skills include the ability to find, use, and present information and data. They include skills in analysis, problem solving, critical thinking, quantitative reasoning, and written and oral expression. All degree-seeking students should learn these skills regardless of institution; they are, therefore, common across the state. Consequently, we believe that a statewide assessment in these general intellectual skills is feasible and desirable.

No current test or assessment device adequately addresses our needs in this area. We need to create assessment techniques that reliably and validly measure general intellectual skills. These techniques should resemble as much as possible what students are required to do in the classroom and in the world of work. At least two years should be set aside to develop and pilot such instruments. No statewide testing should be undertaken before the 1989-1990 academic year. Further, no results should be published until the instruments have been appropriately validated.

The purpose of this assessment must be institutional evaluation; its purpose should not be to prevent individual students from progressing toward a degree, nor to evaluate individual faculty members.

As part of the two years of development and piloting of instruments, special emphasis must also be placed on addressing student motivation and feedback, which and when students should be assessed, various sampling procedures, "value-added" growth in student learning as well as standards, and sensitivity in interpreting and reporting the results.

2. Each institution should assess the specific outcomes of its general education program.

Specifically, we recommend that institutions meet the following minimum criteria for assessing general education:

(A) a clear definition of the objectives of its general education program;
(B) an operational definition of the student learning outcomes associated with those objectives, including the treatment of some common areas of concern as defined by COEP in consultation with the campuses;
(C) specification of the methods and instruments which will be used to collect information on the degree to which those outcomes have been achieved;
(D) specification of the mechanisms for using assessment findings to improve student learning, including possible modifications of curriculum and pedagogy;
(E) a plan for systematic and on-going assessment so that the effects of changes in curriculum and pedagogy can be evaluated over time; and
(F) evidence that the assessment plan for general education has been approved by the corporate faculty and will be given the necessary support by the administration.

We recommend that individual institutions be asked to address, in the general education outcomes they assess, some common areas of concern that will be defined by consultations between COEP and the campuses. We recommend that those consultations begin with a discussion of the "modes of inquiry" and "human condition/ ethical issues" categories (see the Student Learning Subcommittee Report in Appendix D). The goal should be the development of a genuine inter-institutional consensus.

In addition, we recommend that the Department of Higher Education provide a competitive grant program to individual faculty members to encourage definition and assessment of general education. This effort should begin with a focus on modes of inquiry and appreciation of the human condition/ethical issues as defined by our Student Learning Subcommittee.

Finally we recommend the following schedule:

(A) an interim planning report for general education by May, 1988;
(B) an overall assessment plan for general education by May, 1989;
(C) an interim report on assessing general education, including definition, method of assessment, and plans for implementation by May, 1990;
(D) a report to the Department of Higher Education including results of general education assessment by September, 1991.

3. Faculty in each program, department, or discipline should assess students' learning in each major course of study prior to graduation.

The faculty members of each degree-granting program or department in the state should define the objectives of their program especially in terms of the resultant outcomes to be assessed. They should then define an assessment plan including methods and measures, as well as how the results will be used to improve curriculum and instruction. Collaborative efforts should be encouraged, especially among similar programs at different institutions.

We recommend that each institution meet the following minimum criteria for developing assessment plans in each "major":

(A) a clear definition of the objectives of the major;
(B) an operational definition of the student learning *outcomes* (i.e., the *effects* of instruction on students) associated with those objectives;
(C) specification of the methods and instruments which will be used to collect information on those objectives;
(D) specification of the mechanisms for using assessment findings to improve student learning, including possible modification of curriculum and instruction;
(E) a plan for systematic and ongoing assessment, so that the effects of changes in curriculum and pedagogy can be evaluated over time; and
(F) evidence that the assessment plan has been approved by the corporate faculty *and* will be given the necessary support by the administration.

Finally, we recommend that each public institution submit for review and approval to the College Outcomes Evaluation Program Council and a team of outside consultants:

(A) an interim planning report for assessment in the major by May, 1988;
(B) an overall institutional plan for assessment in the major by May, 1989;
(C) information on field testing of that plan for at least some degree programs, by May, 1990;
(D) a follow-up report by May, 1991, on progress toward full implementation of the plan; and
(E) the results and utilization of outcomes assessment, thereafter, as a regular part of the current five-year evaluation cycle for degree programs.

4. Student development should be assessed at each institution using common statewide definitions for each of the following indicators:

— retention rates
— program completion (including graduation) rates
— grade point averages
— credit completion ratios
— licensure/certification exam results
— post-collegiate activities, including:
  job/career information
  further education
  community/professional involvement

Building on the work of our subcommittee, the Department of Higher Education should immediately promulgate common definitions for each of these indicators. Wherever feasible, the Department's Student Unit Record System (SURE) should be utilized to facilitate data collection. Workshops and technical assistance should be provided where needed. Information on these indicators should be collected annually for each institution, analyzed by COEP, and reported to the Department of Higher Education, with the first report due by Fall, 1988.

In addition, each institution should supplement the statewide indicators with the collection and examination of information appropriate to its mission. Examples of these include: number of students placed on probation, reasons for leaving an institution, student satisfaction, and graduate/professional school examination results.

5. Each institution should assess both the personal development of its students and the degree of their satisfaction/involvement with their institutions.

Each institution should review its mission in the area of personal development of students and define specific objectives and priorities. Broad-based involvement within and outside the institution is strongly encouraged in a model of collaboration and sharing. Specific measures and methods should be identified at each institution to assess its success in achieving its goals and objectives, with the results reported periodically to the Department of Higher Education. A schedule of implementation similar to that for assessing the major is proposed.

6. Each institution should assess the outcomes of its efforts in the areas of research, scholarship, and creative expression.

After a review of its mission, and after goals and objectives are defined or revised, each institution should select four to seven outcomes priorities from the matrix created by our subcommittee. Using consultants as appropriate, the Department should attempt to identify common outcomes and assist institutions in developing assessment techniques for these areas.

The institutions should identify their priority outcomes by the Spring of 1988, including the process by which they arrived at their selection of priorities. Comprehensive reports should be submitted to the Department of Higher Education beginning September, 1990, using criteria similar to those for assessing the major.

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7. Using common statewide definitions, each institution should assess its success in providing access and meeting the human resource needs of its population, as well as appraising its economic impact on the community.

Each institution has a common need to provide educational and other services to the citizens in its service area. Special attention needs to be focused on those groups of the population which have traditionally been underserved. Understanding the training and personnel needs of industry, within each county and the entire state, is an essential ingredient of success in higher education. In order to assess the outcomes of their efforts in these two areas, of course, each institution will need to determine both its population and its community's needs.

All institutions have an economic impact on their communities, although they often have little control over that impact. We believe that it is important to know not merely the cost of running an institution but also the impact those expenditures have on the surrounding community.

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8. Based upon its mission and goals, each institution should assess its particular impacts on the community it serves.

Each institution should review its mission and define specific goals and objectives in the area of community impact. Using the guidelines developed by our subcommittee(see Appendix A), each institution should identify its outcomes; audiences, and geographical areas and assess the impact of its priority activities on the community. Each institution should report to the Department of Higher Education periodically based on a schedule similar to that recommended for assessing the major.

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9. Provide all institutions with additional funding, guidelines and criteria, and technical assistance needed to carry out these recommendations.

The Department of Higher Education should provide immediate start-up funding, as well as ongoing funding to carry out these recommendations. The ultimate goal, however, should be to include assessment as an integral part of an institution and thus its budget.

The Department should immediately prepare appropriate guidelines, definitions, and manuals which follow the reports of our subcommittees and offer workshops and technical assistance to our institutions in implementing our recommendations and establishing broad-based assessment efforts.

10. In all of these matters, involve faculty and administrators intimately in the process with a goal of commitment, not mere compliance. In this regard, create a standing broad-based COEP Council to continue the development of these efforts, oversee the collection and analysis of the information, and report regularly to the Board of Higher Education.

(A) A COEP Council should be created which will oversee several subcommittees and report annually to the Board of Higher Education. Membership should be broad-based and reflective of both requisite expertise and various state constituencies. Appointed by the Chancellor, the members should include: three from the state colleges; three from the community colleges; three from Rutgers University; two from the independent colleges; two from outside constituencies; one each from New Jersey Institute of Technology, University of Medicine and Dentistry of New Jersey, and the Department of Higher Education; and the College Outcomes Evaluation Program director.

(B) Three subcommittees should be created with the chair of each also serving as a member of the Council to facilitate communication. These subcommittees should include:

1. Student Learning and Development with two subgroups, one focusing on the assessment of general intellectual skills, and the other focusing on assessment of general education, the major, and student development;
2. Research, Scholarship, and Creative Expression which will focus on assessing the outcomes of faculty activities in these areas; and
3. Community/Society Impact which will focus on assessing the areas covered by its title as well as the post-collegiate activities of former students.

(C) Current COEP members should be invited to continue under the new structure in order to provide essential continuity.

In addition to the formation of a COEP Council, the Department should:

(D) encourage inter-institutional collaboration on assessment among members of the same disciplines (including the use of appropriate professional association services);

(E) encourage each campus to develop a structure for coordinating assessment activities appropriate to its individual needs that includes both faculty and administrators; and

(F) establish a formal statewide network that will offer campus representatives and others interested in assessment the opportunity to communicate readily with one another, as well as the opportunity to be significantly involved in shaping the statewide assessment effort on an ongoing basis.

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A DIFFERENT PERSPECTIVE

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The Advisory Committee's report contains some recommendations that might help achieve the goal of improving undergraduate education in our colleges and universities. The report also includes recommendations that I do not agree with, however, and it therefore seemed to me that as a member of the Committee I have an obligation to make those disagreements both clear and public. Thus, the purpose of this statement is to describe several ways in which the views of one Committee member differ from those of the Committee at large.

I am concerned principally about the recommendations that deal with assessing student learning. One recommendation calls for a common test of "general intellectual skills" to be administered to students in all public colleges and universities, while two other recommendations offer fairly specific guidelines for the assessment of general education and learning in each student's major field. The report suggests that such test-score information would provide evidence that is necessary to make judgments about institutional effectiveness (accountability), while at the same time supply institutions with information that could be used to improve the quality of education (institutional diagnosis). Unfortunately, nowhere does the report address the many technical problems that will make fair, reliable interpretation of such test information very difficult, to say the least. In short, no indication is given of how such information would actually be used to achieve either the accountability or the institutional diagnosis goal.

In the case of the institutional accountability purpose, how would the effectiveness of Institution A be compared to the effectiveness of Institution B if there are differences in institutional histories, student backgrounds, faculty training, and adequacy of facilities? It is not sufficient to suggest testing students at different points during their college years in order to calculate a "growth" or "value-added" index which could then be compared, for such procedures are fraught with interpretive problems. Educational researchers have been examining the question of differential college effects for years, and literally hundreds of research articles addressing the topic have appeared in professional journals. Though it would not be appropriate here to describe the complex technical problems involved, the general conclusion to be drawn from this research is that changes in student test scores do not lead to a reliable assessment of comparative institutional performance. What such a requirement may do, on the other hand, is lead to the unintended consequence of institutions "teaching to the test."

With regard to using test score information to improve education, once again the report ignores the important question of how this would be achieved. A test score in this context can be likened to a physician taking a patient's temperature. The temperature can indicate whether something is amiss, but not what or how to treat it.

The reports described in the introductory pages of the Advisory Committee report, as well as numerous other recent criticisms of American higher educiaton, raise questions about the curriculum (i.e., *what* is being taught or not taught?), the teaching (*how* well is it taught?), and the students (*who* is being admitted, and more importantly, awarded degrees?). Having read and thought carefully about these various criticisms of higher education, and having discussed many of them with my colleagues, I am baffled by the suggestion that the way to begin to deal with any of those three general criticisms would be to develop a large, multi-institutional testing program. On the contrary, if there are good reasons to doubt the integrity of our curriculum, let's reexamine our educational goals and the substance of our curriculum as a means of attaining those goals; if we have indications that our teaching is not as good as it should or could be, let's examine our teaching carefully, and change the ways that we evaluate and reward it; and if there are recurring criticisms about the abilities of those we admit and confer degrees upon, by all means let's carefully scrutinize both our admissions policies and standards for evaluating student performance, being mindful as we do of the effects changes might have on the diversity of the population we would serve. In other words, let us respond to these various criticisms about the educational process by having institutions attend directly to those criticisms, not by constructing some elaborate centralized assessment program that won't tell us what we really need to know.

As a general rule, I think we should be less

concerned about educational "outcomes" and more concerned about educational quality. The two are not synonymous. Information about outcomes represents only one type of indicator about program quality. Other indicators of program quality include various resources (e.g., such "inputs" as ability of entering students, the credentials of the faculty) and educational process characteristics (e.g., how good is the teaching). While resources, process, and outcomes are all important, I would personally place much more value on resources and process as valid indicators of program quality.

I should like to emphasize that I do not oppose testing or assessment in general, and that, to the contrary, I strongly favor the notion of institutions making efforts to learn about their programs and their students. It is for this reason that I agreed to serve on the COEP Advisory Committee in the first place, and also why I find much in this report to be laudable. The worth of any testing or assessment procedure, however, must be judged on the basis of a cost-benefit analysis: Did we learn something we didn't know before, and, if so, was this additional information worth the costs — to those being tested as well as to the testers — of obtaining it? It seems to me that this is the central question here. What would the assessment program proposed here tell us about our institutions that we don't already know or that we couldn't learn through more direct methods, and would the new information be worth the cost and attendant bureaucratic machinery? I frankly don't think so.

A MINORITY REPORT

K. Kiki Konstantinos
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Appended to this report (see Appendix E) is a minority statement that calls for an open public discussion of the desirability of a specific type of basic skills examination for college sophomores. This examination was recommended unanimously in 1983 by a Statewide Task Force on Pre-College Preparation comprised of collegiate and public school educators appointed by the Chancellor of Higher Education and the Commissioner of Education. However, since then, the proposal has not received serious or systematic consideration in a forum that encourages or even allows open public discussion.

The Statewide Task Force recommended that a standard statewide examination of Basic Skills be administered to all college students prior to their junior year. The Task Force also urged that students not be admitted to upper division (junior) status unless they demonstrate through their performance on this test that "they have verbal skills which are significantly higher than, and mathematical skills that are at least as high as, those expected of entering students to the college."

The minority statement appended to this report does not present a detailed rationale for such a sophomore examination. That rationale is implicit in the intensive year-long effort of the Task Force. Instead, the minority report focuses on the more basic issue of the need to discuss the concept, in part because it has not been discussed in any depth, by the College Outcomes Evaluation Program Committee. Yet, there are strong arguments for the adoption of such an examination requirement.

First and foremost, the examination was proposed by the Statewide Task Force on Pre-College Preparation in the spirit of recognition that the problem of skills-deficient college students is shared by both the public education and collegiate communities. As colleges open their doors to high school graduates with wider ranges of ability, it is imperative that public schools do a better job of providing more of their students with special skills needed to sueceed in college. However, the Task Force was well aware that the goal of preparing potentially all high school students for college will not be accomplished easily or quickly. In recognition of the fact, and of the role that college admissions policies have played in generating the problem, members of the Statewide Task Force all agreed that the higher education community must itself take steps to require every student who enters college, particularly those with acknowledged skill deficiencies, to demonstrate essential skills in a specific way before they are permitted to take upper-division courses.

Such an examination requirement is not viewed as a "penalty" to students but, on the contrary, as a means of ensuring that they are capable of benefiting fully from a baccalaureate education as well as a means of guaranteeing the integrity of the diplomas they are awarded. The real injustice to students would be to permit, with the best of intentions, those who lack essential capabilities to invest tuition as well as their time, energy and aspirations in an experience from which they derive little benefit. Nor is the proposed examination in any sense a transgression upon academic prerogative of faculties to decide what and how to teach and the degree to which students master the content of courses. It is aimed at providing a universal, basic assurance which is different from, but no less essential, than success in introductory courses.

The proposed examination is entirely consistent with the existing policy by which college freshmen are tested on the NJCBSPT. That policy recognizes the validity of a statewide standardized basic skills test as the primary means of determining college students' skills deficiencies as well as their readiness to take college courses. A major advantage of the proposed sophomore test would be identical to that of the NJCBSPT — it would help public school districts in their efforts to share the burden of addressing the skills problem by sending a strong message that higher education is not only committed to open access and remediation. It would communicate that colleges are also serious about requiring that all students meet minimal skills standards, even though that commitment may produce academic consequences for some students and therefore economic consequences for colleges. Such a commitment defines the differences between true accountability and the mere illusion of accountability.

The proposed examination would generate other benefits as well and these are cited briefly on page one of the attached minority report. The test would be a direct, and therefore a meaningful, gauge of the effectiveness of college remedial

programs. It would also be an effective screen for students who transfer from community colleges, having met these relative standards by those institutions, into four-year colleges, which have their own sets of relative standards.

For these and other reasons, the sophomore examination requirement recommended by the Statewide Task Force on Pre-College Preparation is indispensable to a sound accountability policy for higher education.

ADDENDUM: BOARD RESOLUTION AND CHARGE

The College Outcomes Evaluation Program (COEP) was created by resolution of the Board of Higher Education in June 1985. The Board's explicit intentions in creating COEP were to: 1) maintain public confidence in higher education, 2) ensure continued support and funding for higher education, 3) stimulate curricular improvements, 4) nurture institutional autonomy and individual diversity, and 5) stimulate educational excellence. An Advisory Committee composed of students, faculty, administrators, and members of the business community, government, and the nonprofit sector, was appointed by the Board upon the Chancellor's nomination. The Board resolution establishing this committee contained the following statements:

> That the said advisory committee be charged to study options and report to the Chancellor its recommendations on how best to design and institute a comprehensive system of evaluating the outcomes of higher education; and be it further resolved:
>
> That the evaluation system shall include an assessment of students' learning through the administration of a test battery that measures proficiencies in writing, quantitative reasoning, critical thinking, and any other areas appropriate for the evaluation of general college-level academic proficiencies. The tests are to be taken toward the end of the sophomore year by all students attending public colleges and universities in New Jersey, and by students attending independent colleges and universities that choose to participate. The test battery shall be constructed so as to include the capacity to measure students' proficiencies in the basic skills after two years of college and to permit comparison with their basic skills proficiencies at college entrance as originally measured by the New Jersey College Basic Skills Placement Test. The test battery may include some components common to all institutions and others specific to individual institutions or groups of institutions; and be it further resolved:
>
> That the said advisory committee be charged further:
>
> 1. To consider the feasibility, design, and implementation of the following potential components of the outcomes evaluation system. In addition to the specific elements outlined below, the committee may recommend other elements as deemed appropriate and feasible.
>
> Student outcomes:
>
> — institutional development of specific graduation requirements, including satisfactory performance on comprehensive examinations to be taken before graduation in each major field of concentration;
> — development of measurements of progress toward the degree and post-graduation activities relevant to institutional assessment; particular attention should be paid to minority retention and graduation as a measure of institutional performance.
>
> Community-based/society-wide outcomes:
>
> — establishment, at the state level, of a matrix and guidelines for the evaluation of these outcomes;
> — selection, at the local level, of appropriate outcomes and development of instruments and practices for their evaluation;
> — identification of models for the sound and objective evaluation of these outcomes and development of policies for their use on a system-wide basis.
>
> Feedback and information sharing:
>
> — review of information systems presently in use and, if necessary, redesign so as to report the results of outcomes assessments in ways that can be used constructively;
> — implementation of a unit record system with standardized definitions and reporting formats.
>
> 2. To recommend ways of implementing the program, with specific reference to methods of evaluating various distinct outcomes and identification of those elements that should be centralized and those that should be designed and administered at the institutional level.
> 3. To recommend ways of utilizing incentives to improve performance.
> 4. To recommend an appropriate distribution of the costs of the program.